

FACTS ABOUT

Environmental and Energy Standards for Hydrogen Production (SB 1505)

Ensuring that hydrogen fuel meets California's environmental goals

To help facilitate an energy secure and environmentally friendly future for its residents the State is promoting the transition from petroleum based fuels to the use of lower carbon emitting alternative fuels. Senate Bill (SB) 1505, signed in 2006 ensures that a transition to hydrogen fuel reduces emissions and petroleum use. SB 1505 directs the California Air Resources Board (ARB or Board) to develop regulations setting emissions and energy standards for hydrogen production dispensed for transportation use within the State.

The regulation is currently in the development process and is expected to be approved by the Board before the end of 2010. The regulation will be referenced as the Environmental and Energy Standards for Hydrogen Production.

The regulation will require providers of hydrogen to do the following:

1. Produce hydrogen that has 50 percent less local emissions of Oxides of Nitrogen and Reactive Organic Gas compared to gasoline production well-to-tank;
2. Produce hydrogen that has 30 percent fewer greenhouse gas emissions (GHG) as compared to gasoline well-to-wheel;
3. Produce hydrogen that has zero increase in toxic air contaminants as compared to gasoline production well to tank;
4. Produce 33.3 percent of the hydrogen from eligible renewable energy resources; and
5. Report annual quantities and methods of hydrogen dispensed to ARB.

These standards are already in effect for State funded hydrogen stations and once adopted will be in effect for all hydrogen produced and/or dispensed statewide when annual throughput reaches 3,500 metric tons.

This regulation will help cause the reduction of well-to-wheel emissions of GHG by 37 percent per year, well to tank emissions of criteria pollutants by 30 percent per year and well-to-tank toxic air contaminants by 10 percent per year in comparison to the typical hydrogen production process of today. These are emission reductions above and beyond those already achieved by hydrogen fueled vehicles when compared to a gasoline fueled vehicle.

For More Information

Please visit: <http://www.arb.ca.gov/msprog/hydprod/hydprod.htm> for more information or to join the email list to follow developments of this regulation. If you have additional questions or comments, please contact Ben Deal at (916) 322-8449 or at bdeal@arb.ca.gov. To learn more about the California Hydrogen Highway Network, please visit www.HydrogenHighway.ca.gov.

You may obtain this document in an alternative format by contacting ARB's Americans with Disabilities Act Coordinator at (916) 322-4505 (voice); (916) 324-9531 (TDD, Sacramento only); or (800) 700-8326 (TDD, outside Sacramento).